FPS30 | Sound-Focusing Stereo Speaker

Technical Information for System Engineers





Specifications: FPS30-8

System Type	
	2 x 50 mm (2.0 in) Stereo high-directivity focused
	sound, voice coil/8 Ohm direct
Frequency Response (-3 dB) ¹	260 Hz - 18.7 kHz
Frequency Response (-6 dB) ¹	230 Hz - 20 kHz
Low Frequency (-10 dB) ¹	200 Hz - 20 kHz
Max. Program Power	50 W
Max. Continuous Power RMS ²	25 W
Max. SPL dB @ .5M	108 dB
Sensitivity dB @ 1W/0.5M ³	90 dB
Impedance	8 Ohm (nominal value)
Coverage Angle (-6 dB)	34° @ 2 kHz
Directivity Factor (Q)	6.37 (100 Hz to 10 kHz averaged); 51.88 @ 2 kHz
Directivity Index (DI)	10.75 dB (100 Hz to 10 kHz averaged); 17.15 dB @ 2 kHz
Transducers	2 x 50 mm (2.0 in) Wide-range, fiber cone, rubber surround
Inputs	3 M (10.0 ft) Hardwire lead-4 conductor
Dome Material	Custom molded PETG clear dome
Enclosure Material	Molded Plastic ABS driver housing
Colors	Clear, custom translucent & opaque colors available
Dome Diameter	781 mm (30.75 in)
Total Height	333 mm (13.1 in)
Weight	3.27 kG (7.2 lbs)
Accessories	
Optional	SoundSleeves™ & Wall Mount Bracket

SoundTube continually develops new product innovations and improvements. Updates to existing products without prior notice are an example of SoundTube's drive for constant improvement.

Key Features

- Patented Dual-Parabolic[™] dispersion control technology provides a dramatic hot spot with crisp stereo separation.
- 781 mm (30.75 in) Custom-molded PETG clear polymer dome.
- Twin 50 mm (2.0 in) drivers for stereo music & messaging.
- Patented ZeroReflection[™] enclosure technology for accurate sound reproduction.
- Narrow 34° coverage angle for sharp focus.
- Single point balanced mounting for easier and cleaner-looking installs.
- Shipped fully assembled; bulk shipping available upon customer request.
- Optional wall-mount bracket available.
- Custom colors and printed decorative and promotional dome covers optional.

Applications

The SoundTube FPS30 incorporates twin high-performance drivers with patented Dual-Parabolic[™] sound dome technology to deliver a targeted audio footprint for highdefinition music and messaging applications. Tight coverage, wide-range stereo sound and true audio containment make the FPS30 the ideal choice for focusedaudio applications, including kiosks, P.O.P. displays, shows, plasma displays, or anywhere contained high-fidelity stereo sound is required.

Patented Dual-Parabolic™ **Technology**

SoundTube Entertainment is constantly developing new technologies that enhance audio product performance. SoundTube Entertainment's innovations are protected by multiple U.S. & international patents, which explicitly cover SoundTube dome, enclosure and dispersion technologies. SoundTube Entertainment actively defends its patents in order to protect SoundTube resellers and end users.

Technical Data

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment, or at www.soundtube.com.

¹ Frequency response is measured in full space.

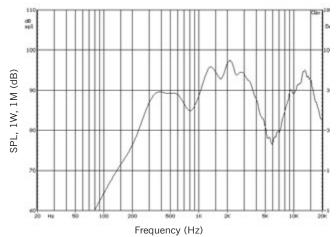
² Continuous power rating, EIA-426-B test.

³ 2.83 Volts at a distance of 0.5 meters.

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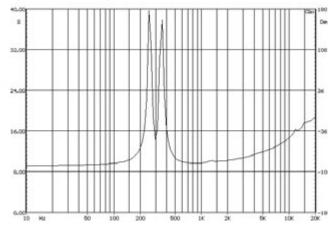


Frequency Response (unequalized)

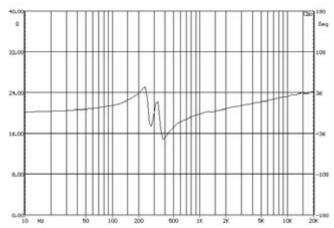


Frequency Response on-axis in full space (4π) .

Impedance Response



Phase Response



Technical data and downloads include:

EASETM data – 3-D polar plots

Tech Sheets – Technical information and architectural specs for system engineers.

Data Acquisition

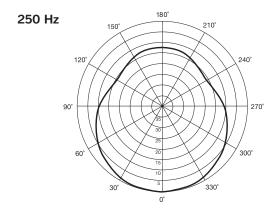
All performance data acquired at SoundTube's Technical Measurement Center (TMC) are analyzed using a variety of standard measurement techniques, including Maximum Length Sequence (MLS) and Time Delay Spectrometry (TDS). Performance, development and data acquisitions tools include: Gold Line TEF 20 Suite, CLIO, LMS, LEAP, and proprietary modeling software.

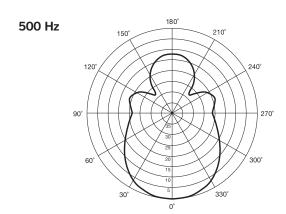
Data for Other SoundTube Products

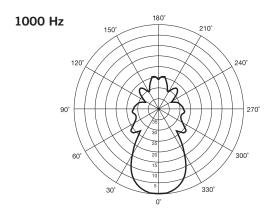
Also available: Sales & installation information for all SoundTube speaker systems, including open-ceiling, in-ceiling, surface-mount, in-ground and sound-focusing speakers.

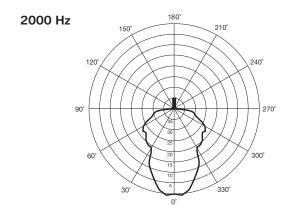


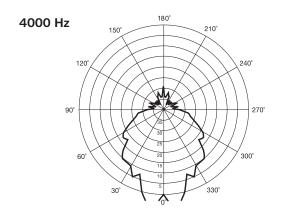
Horizontal One Octave Polars

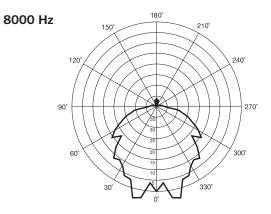






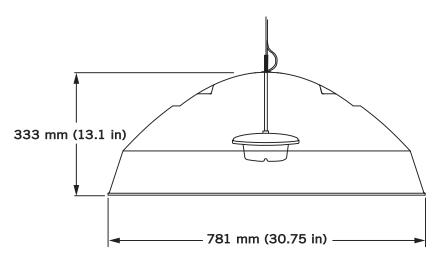








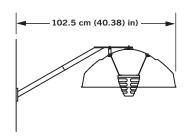
Mechanical Drawings



Optional Accessories



AC-HC20 20' Hanging Cable with SpeedClamp™



AC-WB3 Wall Mount Bracket



AC-CPSU Custom Printed SoundSleeve™

Architectural Specifications

The loudspeaker shall consist of two 50 mm (2.0 in) transducers with a voice coil diamter of 25 mm (1.0 in). Sound waves from the transducers shall be reflected from a 781 mm (30.75 in) Dual-Parabolic sound dome.

Performance specifications of a typical production unit shall be as follows: Usable frequency response shall extend from 200 Hz – 20 kHz. The loudspeaker shall be available in 8 Ohm impedance mode. Rated power capacity of the components and network shall be at least 25 Watts RMS.

The dome shall be constructed of custom-molded PETG with an ABS driver enclosure. The transducers shall have a fiber cone with butyl rubber surround. The grill shall be constructed of heat-resistant ABS plastic material. The overall dome and cabinet dimensions shall be no more than 781 mm (30.75 in) in diameter by 333 mm (13.1 in) in height and weigh no more than 3.27 kG (7.2 lbs).

Installation for the FPS30 shall be by single point hanging aircraft cable (AC-HC20) with a 1/4-20 stud into a threaded insert on dome apex. Additional accessories include Wall Mount Bracket (AC-WB3) and Threaded Hanging Rod (AC-TR36). Wall bracket is constructed of cold rolled steel. The hardwired input connectors shall be tinned, 24-gauge, 4-conductor, color-coded wires. Optional decorative SoundSleeve™ is available for in-store marketing.

SoundTube Entertainment

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All SoundTube products come with a 5-year limited warranty.

(not shown)

AC-TR36 – Threaded Hanging Rod AC-FE1 – Forged Eyebolt